

REMARKS

This paper is responsive to the Office Action. No claims are canceled, amended or added herein. Claims 1-25 remain pending in the application.

Reconsideration of this application is respectfully requested in view of the following remarks. For the convenience and reference of the Examiner, the remarks of the Applicant are presented in the order in which the corresponding issues were raised in the Office Action.

I. General Considerations

Applicant notes that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited references. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner, and/or the merits of additional or alternative arguments.

II. Rejection of Claims 1-25 Under 35 U.S.C. §103(a)

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143.

a. claims 1-13, 24 and 25

Turning now to the rejections, the Examiner has rejected independent claims 1, 8, 24 and 25 under 35 U.S.C. §103(a) as being unpatentable over U.S. 6,597,713 to Ouichi ("*Ouichi*") in view of U.S. 2002/0003231 to Sun et al. ("*Sun*"). Applicant disagrees with the contentions of the Examiner however and submits that for at least the reasons outlined below, the rejection of claims 1, 8, 24 and 25 should be withdrawn.

In rejecting the aforementioned claims, the Examiner has alleged that "*Ouichi* shows in Fig. 19 a vertical cavity surface emitting laser 21 ... attached to said semiconductive substrate 141" and, further, that "... it would have been obvious to ... provide *Ouichi* a light sensor [42 of *Sun*] blocks only part of the light beam produced by the vertical cavity surface emitting laser during use such that light of the light beam not blocked by the light sensor is allowed to pass as taught by *Sun*." Notwithstanding the characterizations advanced by the Examiner however, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to the rejected claims.

For example, while the Examiner has alleged that the "vertical cavity surface emitting laser 21 is attached to said semiconductive substrate 141," it is clear from Figure 19 of *Ouichi* that, in fact, the "VCSEL substrate 21" is not attached to the "substrate 141," as claims 1, 8, 24 and 25 require. Instead, Figure 19 of *Ouichi* indicates that a "wiring substrate 130" is positioned on the "substrate 141." Thus, even if the references are combined in the purportedly obvious fashion, the resulting combinations nonetheless fail to include all the limitations of claims 1, 8, 24 and 25.

Further, claims 1, 8, 24 and 25 also require that the claimed "light sensor" be positioned on the "semiconductive substrate" to which the claimed "vertical cavity surface emitting laser" is attached. While the Examiner has alleged, in the rejection of these claims, that it would be obvious to modify the *Ouichi* device to include the *Sun* sensor, the Examiner has failed to specify precisely *where* in the *Ouichi* device it would allegedly be obvious to position the "sensor 42" of *Sun*. For at least this reason, the Examiner has failed to establish a *prima facie* case of obviousness with respect to the rejected claims, inasmuch as the rejected claims recite a particular arrangement of the claimed "light sensor" and the Examiner has not established, or even asserted, that the references teach or suggest that particular claimed arrangement.

Moreover, it is not clear in any event that the "sensor 42" of *Sun* could be attached to the "substrate 141" of *Ouichi* in the manner that the claims require. Particularly, it appears from Figure 19 of *Ouichi* that the "guide holes 142" extend fully through the "substrate 141." Thus, even if the position of the Examiner is that it would be obvious to mount the "sensor 42" of *Sun* to the "substrate 141" of *Ouichi*,

it is not at all clear that the “sensor 42” of *Sun* could be attached to the “substrate 141” and, at the same time, also be “positioned along said light path between said vertical cavity surface emitting laser and said etched cavity in said semiconductive substrate” as the claims require. That is, there is no reasonable expectation that the purportedly obvious modification of the *Ouichi* device advanced by the Examiner could be successfully implemented.

In view of the foregoing, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 8, 24 and 25, at least because even if the references are combined in the purportedly obvious fashion, the resulting combinations fail to include all the limitations of the rejected claims, and because there is no reasonable expectation that the purportedly modification of the *Ouichi* device advanced by the Examiner could be successfully implemented. Inasmuch as claims 2-7 and claims 9-13 likewise include, by definition, the limitations of claims 1 and 8, respectively, Applicant respectfully submits that the Examiner has likewise failed to establish a *prima facie* case of obviousness with respect to claims 2-7 and 9-13. For at least the foregoing reasons, Applicant submits that the rejection of claims 1-13 and 24-25 should be withdrawn.

b. claims 14-23

With regard to method claims 14-23, the Examiner has asserted that “Claims 14-19 and 23 recite a method of fabricating a semiconductor assembly. Since *Ouichi* and *Sun* disclose the product, it is inherent a product by process for performing the method as recited in the claims.” *Emphasis added*.

With regard to the allegation of inherency made by the Examiner, Applicant respectfully notes that inherency is not readily established. For example, as noted in MPEP § 2112, the Examiner must provide rationale or evidence showing inherency. In particular, “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” *In re Rijckaert*, 9 F.3d 1531, 1534 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993) (*emphasis in original*). Moreover, the Court of Appeals for the Federal Circuit has noted that “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described by the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a thing may result from a given set of circumstances is not sufficient’.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ 2d 1949, 1950-51 (Fed. Cir. 1999) (*emphasis added*).

Finally, “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex Parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (*emphasis in original*).

In view of the foregoing standards, Applicant respectfully submits that the general assertion made by the Examiner in the rejection of claims 14-23 falls well short of establishing inherency of the claimed method. For example, the Examiner has failed to establish that the missing descriptive matter, namely, the claimed method, is necessarily present in the device(s) purportedly described in *Sun* and *Ouichi*.

Additionally, and as discussed at II.a. above, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1-13, 24 and 25, at least because even if the references are combined in the allegedly obvious fashion, the resulting combinations fail to include all the limitations of the rejected claims. Thus, to the extent that the rejection of claims 14-23 is based upon the characterization of *Sun* and *Ouichi* advanced by the Examiner in the rejection of claims 1-13, 24 and 25, the rejection of claims 14-23 lacks an adequate foundation and should accordingly be withdrawn.

III. Docket Number

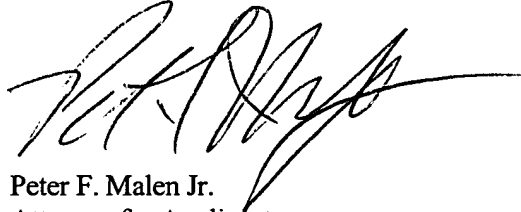
Applicant respectfully notes that the Office Action incorrectly references Attorney Docket No. "H16 25543 US." Pursuant to the Change of Attorney Docket Number filed in this case on June 29, 2004, the correct docket number for this case is 15436.437.5. Applicant thus respectfully requests that all applicable USPTO records be updated accordingly, and Applicant further requests that all further communications from the USPTO reference docket number 15436.437.5.

CONCLUSION

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 1-25 is in condition for immediate allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 23RD day of November, 2005.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. F. Malen Jr.', with a long horizontal flourish extending to the right.

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